UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,804	11/26/2003	Joseph Patino	CE12081JEM	8199

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EXAMINER
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ART UNIT	PAPER NUMBER
2858	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/722,804	PATINO ET AL.
Office Action Summary	Examiner	Art Unit	
	YALKEW FANTU	2838	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _15 January 2009_.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-15_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-15_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-12 and 14-15 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Brown et al. (US 4,061,956) in view of Oglesbee et al (US

6,100,664).

With respect to claim 1, Brown et al. (hereinafter Brown) discloses a method of

charging a battery (fig. 1), comprising the steps of receiving an input power supply

signal (fig. 1, 252) that is used to charge a battery 32; wherein the input power supply

signal continues to fluctuate after its receipt (it normally fluctuates at the result of small

irregularities of income signals) monitoring a voltage level 66 of the input power supply

signal 252 to determine when the input power supply signal reaches first and second

predetermined thresholds (col. 8, lines 61-64; threshold value of 25 and 28.5); and in

response to said monitoring step, selectively controlling a charging switch 12 and 44

that controls the flow of the input power supply signal 252 to the battery 32, wherein

said controlling step 42 and 44 comprises activating the switch 12 when the voltage

level of the input power supply signal 66 reaches the first predetermined threshold,

(which is 25 volts, in this case see col. 8, lines 63) and deactivating the switch when the

voltage level of the input power supply signal reaches the second predetermined

threshold (disable when the voltage exceeds 29 volts see col. 8, lines 62-65).

But, Brown does not expressly disclose activating switch when the voltage level of the input power supply signal increases to the first predetermined threshold, and deactivating the switch when the voltage level decreases to reach the second predetermined threshold.

Oglesbee et al (hereinafter, Oglesbee) discloses activating switch when the voltage level increases to the first predetermined threshold (the microprocessor of fig. 1, 110 use switch 130 to activate (col. 4, lines 56-64); and the microprocessor 110 immediately deactivate the switch 130 (col. 4, lines 26-30)).

It would have been obvious to one of ordinary skill in the art to activating the switch 130 when the voltage level of the input power supply signal increases to reach the first predetermined threshold, and deactivating the switch when the voltage level of the input power supply signal decreases to reach the second predetermined threshold setting the controlling program to perform theses functionalities. in such a way to activate switching when voltage level of the input power supply increase reach predetermined threshold, and deactivating switch when input power supply signal decrease to reach second predetermined threshold value. The reason is to prevent the charging element from being overcharged or completely depleted, which easily damages the rechargeable battery. A control circuit can also include relay control circuit that functions to control various relays so that it works as described above (see col. 9, lines 5-10 of Brown).

With respect to claim 2, Brown further discloses a capacitor (contained in the boost circuit fig. 1, 14); (the capacitor, as claimed, does not maintain voltage of the input

power), the voltage level of the input power supply signal (see fig. 1, voltage sensor 66) to indicate that the electronic device is being charged.

With respect to claim 4, Brown discloses synchronizing with said controlling of the charging switch (fig. 1, 12) the control of the second switch (fig. 1, 44) that regulates current flow to a backlighting circuit (84) such that the second switch to the backlighting circuit is activated when the charging switch is activated and deactivated when the charging switch is deactivated (activate and deactivate when the switch is on and off).

Regarding claim 8, Brown discloses receiving an input power supply signal (fig. 1, 18 and 80) in an electronic device having a capacitor (fig. 1, 14) with a value high enough to maintain a voltage level of the input power supply signal (col. 8, lines 54-55) to indicate that the electronic device is being charged to prevent disabling of a charging sequence for the battery 32, monitoring the voltage level of the input power supply signal to determine when the voltage level of the input power supply signal reaches first and second predetermined thresholds, wherein the magnitude of the second predetermined threshold is lower than the magnitude of the first predetermined threshold (col. 8, lines 55-64) ; (selectively controlling a charging switch (fig.1, 44) that controls the flow of the input power supply signal to the battery 32, wherein said controlling step comprises activating the switch when the voltage level of the input power supply signal reaches the first predetermined threshold and deactivating the switch when the voltage level of the input power supply signal reaches the second predetermined threshold (col. 8, lines 62-64) .

With respect to claim 9, Brown et al discloses the claimed charging system (Fig. 1) for charging a battery (Fig.1 number 26) comprising an input for receiving an input power (Fig. 1 number 10), a charging switch (Fig. 1 number 12 and 44) and a controller (Fig. 1 'Control Circuit I' and Col 3 line 7). Control charging switch (Fig. 1 number 44) activate charging switch (Fig. 1 number 12) when input power (Fig. 1 number 16) reaches predetermined threshold. The voltage control circuit of Fig. 1 number 40 receives the voltage signals, which reflects state of charge of the battery. (Col.3 line 65-68 and 4, line 1-5) it is well known to those skilled in the art that the state of charge of a battery indicates the threshold voltage difference for activating and deactivating the charging switches.

With respect to claim 10, Brown discloses, further, comprising a capacitor (that maintains a voltage level (fig. 1, 66) of the input power supply signal (fig. 1, 66) that said controller monitors to determine that said battery is being charged (col. 4, lines 5-10)

With respect to claim 11, Brown discloses a circuit (fig. 1, control circuit I) and a second switch (fig. 1, 44) that regulates current to flow to said circuit, said controller is further programmed (col. 3, lines 57-63) to synchronizing with controlling of the charging switch (fig. 1, 12) the control of the second switch (fig. 1, 44) that regulates current flow to a backlighting circuit (84) such that the second switch to the backlighting circuit is activated when the charging switch is activated and deactivated when the charging switch is deactivated (activate and deactivate when the switch is on and off).

With respect to claim 12, backlighting circuit (Fig. 1. Number 84 and Col.8 line 65 to Col. 9 line 40)

With respect to claim 14 rectifier (Fig .1 number 14), boost circuit includes a rectifier.

With respect to claim 15 the magnitude of the predetermined threshold (Col. 8, lines 54-64).

Regarding method claims 3, 5-7 the method steps are met by the operation of Brown and Oglesbee as applied to claims 1, 2, 4, 8-12, 14 and 15.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al (US 4061956) in view of Patino et al.(US 6972542).

With respect to claim 13, Brown et al. teaches the invention set forth above and further teaches battery charging system (Fig. 1). Brown lacks the wireless charging system. Patino et al teaches that it is well known to use a wireless battery to the charging system. It would have been obvious to one ordinary skill in the art at the time the invention was made to modify the charging system of Brown et al with that of Patino et al for the purpose of having a charging system with wireless capability for easy and portable use.

Response to Arguments

 Applicant's arguments filed on 03/17/2009 have been considered but are ineffective to overcome the combined references of Brown in view of Oglesbee. (See the rejection above).

Applicant argues that Oglesbee "… is impossible to perform the active step of activating the switch because it has already been turned on ..."

Oglesbee reference, however, discloses that the microprocessor 110, which is coupled to the switch 130 to control the battery charger using a software program

executed by the microprocessor (col. 2, lines 41-45). The purpose of the switch 130 is control the flow of current through resistors, in such a way that when ON, current path is created for charging propose; and when OFF, the switch 130 is open and no current flows through the path (col. 2, lines 60-68). Therefore, the controlling element, the microprocessor 110 monitors the voltage across the current sense resistor and compares it with the lower threshold value. When determined that it has reached the lower threshold value, automatically switched off to protect from over discharging (see col. 4, lines 26-68). This repeated use of a controlling apparatus, such as a microprocessor is a common use in the art.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YALKEW FANTU whose telephone number is (571)272-8928. The examiner can normally be reached on M - F: 7- 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm E. Ullah can be reached on 571-272-2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Adolf Berhane/
Adolf Berhane
Primary Examiner
Art Unit 2838